

I claim:



1. An apparatus which vertically transitions the location of a load comprising:

- (a) means for universally attaching to flanges;
- (b) means for establishing a high center point in horizontal applications;
- (c) means for establishing a high center point in vertical applications;
- (d) means for providing minimal peripheral interference;
- (e) means for limiting weight;
- (f) means for facilitating ease of transport;
- (g) means for bearing heavy loads.

<sup>4</sup>  
2. An apparatus which vertically transitions the location of a load in horizontal applications as recited in claim <sup>3</sup>1, comprising:

- (a) base;
- (b) a dual use member connected to said base;
- (c) a vertical direction transition member connected to said dual use member;
- (d) a centering member connected to said vertical direction transition member;
- (e) a high point anchoring member connected to said centering member;
- (f) a pulley connected to said high point anchoring member;
- (g) a winch connected to said dual use member;
- (h) a cable connected to said winch which passes through said pulley attached to

said high point anchoring member

<sup>5</sup>  
3. An apparatus which vertically transitions the location of a load in vertical applications as recited in claim <sup>3</sup>1, comprising:

- (a) base;

- (b) a support member connected to said base;
- (c) a horizontal direction transition member connected to said support member;
- (d) a dual use member connected to said horizontal direction transition member;
- (e) a high point anchoring member connected to said dual use member;
- (f) a pulley connected to said high point anchoring member;
- (g) a winch connected to said dual use member;
- (h) a cable connected to said winch which passes through said pulley attached to said high point anchoring member.

<sup>6</sup>  
4. An apparatus which vertically transitions the location of a load as recited in claim 1 and claim 2, wherein said means for universally attaching to flanges includes:

- (a) a base;
- (b) said base which includes extending members;
- (c) said base and said extending members which include drilled holes which will align with holes in said flanges;
- (d) bolts with tapered heads which insert into said drilled holes which align with said holes in said flanges;
- (e) tapered nuts which screw onto said tapered bolts.

<sup>7</sup> 5. An apparatus which vertically transitions the location of a load as recited in claim <sup>6</sup>4, wherein said means for universally attaching to flanges includes:

- (a) a base;
- (b) said base which includes a centering hole through which a mounting bolt with a tapered head passes;
- (c) said base which includes threaded holes into which guide bolts may be screwed;

- (d) said base which includes extending members;
- (e) said extending members which include slotted grooves;
- (f) said extending members which include centering holes through which mounting bolts with tapered heads may pass;
- (g) said base which includes cavities through which said extending members may pass;
- (h) said base which includes threaded holes through which extending member locking bolts may be screwed;
- (i) said guide bolts which screw into said threaded holes and pass through said slotted grooves of said extending members;
- (j) said mounting bolts with tapered heads which pass through said base at said centering hole and said extending members at said centering holes and universally passing through holes of said flanges;

8 (k) tapered nuts which thread onto said mounting bolts with tapered heads .

6. An apparatus which vertically transitions the location of a load as recited in claim 1, 2 and claim 3  
wherein said means for establishing a high center point in horizontal applications includes:

- (a) base;
- (b) said base which includes a mounting pedestal;
- (c) said mounting pedestal which includes a drilled and threaded hole into which a locking screw may be threaded;
- (d) a dual use member connected to said mounting pedestal;
- (e) said dual use member which includes a drilled hole into which said locking screw may be inserted locking said dual use member to said mounting pedestal;

(f) a vertical direction transition member connected to said dual use member;

(g) said vertical direction transition member which includes a drilled and threaded hole into which a locking screw can be threaded aligning with a drilled hole in said dual use member thereby locking said vertical direction transition member to said dual use member;

(h) said vertical direction transition member which includes a drilled hole through which a locking pin may pass;

(i) a horizontal application centering member connected to said vertical direction transition member;

(j) said horizontal application centering member having appropriately spaced drilled holes through which said locking pin may pass;

(k) a high point anchoring member connected to said centering member;

(l) said high point anchoring member having a drilled and threaded hole through which a locking screw may pass;

(m) said horizontal application centering member having a drilled hole situated in such manner so as to align with said locking screw which passes through said drilled and threaded hole in said high point anchoring member.

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2 and claim 3

7. An apparatus which vertically transitions the location of a load as recited in claim 1, wherein said means for means for establishing a high center point in vertical applications, includes:

(a) base;

(b) said base which includes a mounting pedestal;

(c) said mounting pedestal which includes a drilled and threaded hole into which a locking screw may be threaded;

- (c) a horizontal support member connected to said mounting pedestal;
- (d) said horizontal support member which includes a drilled hole into which said locking screw may be inserted;
- (e) a horizontal direction transition member connected to said horizontal support member;
- (f) said horizontal direction transition member which includes a drilled and threaded hole through which a locking set screw may pass;
- (g) an dual use member working in conjunction with said horizontal direction transition member;
- (h) high point anchoring member connected to said dual use member;
- (i) said high point anchoring member having a drilled and threaded hole through which a locking screw may pass;
- (j) said dual use member having a drilled hole situated in such manner so as to align with said locking screw which passes through said drilled and threaded hole in said high point anchoring member.

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2 and claim 3

8. An apparatus which vertically transitions the location of a load as recited in claim 1, where in said means for providing minimal peripheral interference in horizontal applications, includes:

- (a) base;
- (b) a dual use member connected to said base;
- (c) a vertical direction transition member connected to said dual use member;
- (d) an centering member connected into said vertical direction transition member;
- (e) a high point anchoring member connected to said centering member.

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2 and claim 3

9. An apparatus which vertically transitions the location of a load as recited in claim 1,

wherein said means for providing minimal peripheral interference in vertical applications, includes:

(a) base;

(b) a horizontal support member connected to said base;

(c) a horizontal direction transitional member connected to said horizontal support

member;

(d) a dual use member working in conjunction with said direction transitional

member;

(e) a high point anchoring member connected to said dual use member.

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2 and claim 3

10. An apparatus which vertically transitions the location of a load as recited in claim 1,

wherein said means for limiting weight includes:

(a) component parts manufactured of light weight but very strong structural

materials;

(b) the limitation of the number of component parts.

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2 and claim 3

11. An apparatus which vertically transitions the location of a load as recited in claim 1;

wherein said means for facilitating ease of transport includes:

(a) the limitation of the number of component parts;

(b) strategic placement of corresponding drilled and threaded holes in said

component parts;

(c) the use of wing nut bolts to be placed into said drilled and threaded holes which

lock said component parts together so as to lock said apparatus into one complete unit.

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2 and claim 3

12. An apparatus which vertically transitions the location of a load as recited in claim 6,

wherein said means for bearing heavy loads in horizontal applications includes:

- (a) constructing component parts of light weight yet highly strong materials;
- (b) connecting of a vertical support cable between said base and said vertical direction transition member in such a manner so as to increase structural integrity;
- (c) the affixing of a horizontal support cable between said vertical directional transition member and said high point anchoring member so as to increase structural integrity;
- (d) a hinged variable cam mounted to said vertical directional transition member through which said horizontal support cable passes;
- (e) a locking mechanism connected to said vertical directional transition member which locks said hinged variable cam into place when said apparatus is deployed in horizontal applications;
- (f) construction of component parts so as to provide points of structural support which increases structural integrity;
- (g) a winch anchoring mount which includes a drilled and threaded hole into which a locking screw can be threaded as well as drilled and threaded holes used to connect a winch connected to said vertical support member which includes a drilled hole into which said locking screw may pass;
- (h) a winch connected to said winch anchoring mount which includes a cable;
- (i) said cable which passes through a pulley connected to said high point anchoring member.

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13. An apparatus which vertically transitions the location of a load as recited in claim 7, <sup>2 and claim 3</sup> wherein said means for bearing heavy loads in vertical applications includes:

- (a) constructing component parts of light weight yet highly strong materials;
- (b) attachment of a vertical application upper support cable between said base and

said horizontal direction transition member in such a manner so as to increase structural integrity;

(c) attachment of a vertical application lower support cable between said horizontal direction transition member and said high point anchoring member so as to increase structural integrity;

(e) construction of component parts so as to provide points of structural reinforcement which increases structural integrity.

(f) a winch anchoring mount which includes a drilled and threaded hole into which a locking screw can be threaded as well as drilled holes used to connect a winch connected to said centering member which includes a drilled hole into which said locking screw may pass;

(g) a winch connected to said winch anchoring mount which includes a lifting cable;

(h) said lifting cable which passes through a pulley connected to said high point anchoring member.

<sup>14</sup>  
14. A product for protecting a flange surface when an apparatus which vertically transitions the location of a load as recited in claim 2 is attached, which includes:

(a) a strong but pliable material to protect the surface of the flange;  
(b) an adhesive material applied to one side of said pliable material which allows the said pliable material to attach to said base and said universal adapting members .

<sup>17</sup> <sup>16</sup>  
15. A product for protecting a flange surface as recited in claim 12 when an apparatus which vertically transitions the location of a load ~~as recited in claim 2~~ is attached, which includes:

(a) a strong but pliable material;  
(b) a strong but pliable material cut to conform to the form of said base and said universal adapting members;



- (c) an adhesive material;
- (d) said adhesive material applied to one surface of said pliable material;
- (e) a protective film covering to cover said adhesive material until such time as said pliable material is applied to said base and said universal adapting members.

16. I claim a method for vertically altering the location of a load.

17. I claim a method which may be used in both horizontal and vertical applications whereby the location of a load may be vertically altered in vessels or cavities wherein said vessels or cavities employ the use of flanges.

18. I claim a method which may be used in both horizontal and vertical applications whereby the location of a load may be vertically altered in vessels or cavities wherein said vessels or cavities employ the use of flanges, comprising the steps of:

- (a) bolting a universally adapting apparatus to said flange thereby establishing a high center point;

- (b) attaching a cable which works in conjunction with a pulley and a winch to the load which is desired to be lifted;

- (c) exerting force to said winch.